

Remarks

I. Support for the Amendments

Support for forgoing amendments to claims 52, 53, 57, and 66 can be found throughout the specification. Specifically, support for the amendment to claim 52 can be found in the specification at page 13, lines 9-18; at page 15, lines 7-30; at page 21, lines 5-14; at page 29, line 29 through page 30, line 2; throughout pages 31-36; and throughout the Examples. Support for the amendment to claim 53 can be found at page 15, lines 7-12, and at page 29, line 29 through page 30, line 2. The amendment to claim 57 is made to correct an inadvertent typographical error. The amendments to claim 66 are supported at pages 31-33 and in Figures 1 and 2, and have been made at the suggestion of the Examiner (*see* Paper No. 8 at page 3, section 9). Therefore, these amendments do not add new matter, and their entry and consideration are respectfully requested.

II. Status of the Claims

By the forgoing amendments, claims 52, 53, 57, and 66 are sought to be amended. Upon entry of the foregoing amendments, claims 52-68 are pending in the application, with claim 52 being the sole independent claim.

III. Summary of the Office Action

In the Office Action dated April 8, 2003, the Examiner has made five rejections of, and one objection to, the claims. Based on the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and objections and that they be withdrawn.

IV. The Double Patenting Rejection

In the Office Action at pages 3-5, the Examiner has rejected claim 52 under the judicially created doctrine of obviousness-type double patenting, as being unpatentable over claim 56 of commonly owned, copending U.S. Application No. 09/907,719 (hereinafter “the ’719 application”). Applicants respectfully traverse this rejection.

Applicants respectfully disagree with the Examiner’s contention that present claim 52 is not patentably distinct from claim 56 in the ’719 application. In any event, Applicants note that claim 56 in the ’719 application was cancelled in an Amendment and Reply filed April 11, 2003, and is therefore no longer pending in that application. Hence, Applicants respectfully assert that the rejection of claim 52 for obviousness-type double patenting over claim 56 of the ’719 application is not sustainable. Reconsideration and withdrawal of this rejection are respectfully requested.

V. The Rejection Under 35 U.S.C. § 101

In the Office Action at page 5, the Examiner has rejected claims 52 and 53 under 35 U.S.C. § 101, alleging that the claimed invention is directed to non-statutory subject matter by reciting “genomic DNA.” As suggested by the Examiner (*see* Office Action at page 5, section 13), claims 52 and 53 have been amended to recite “isolated linear nucleic acid molecule” and “isolated genomic DNA molecule,” respectively. Hence, the rejection of claims 52 and 53 under 35 U.S.C. § 101 has been overcome, and reconsideration and withdrawal thereof are respectfully requested.

VI. The Rejection Under 35 U.S.C. § 102(b) Over Bebee

In the Office Action at pages 5-6, the Examiner has rejected claims 52-55, 57 and 64-68 under 35 U.S.C. § 102 (b), as being anticipated by Bebee *et al.*, U.S. Patent No. 5,434,066 (hereinafter “Bebee”). Applicants respectfully traverse this rejection.

Present claim 52 (and hence claims 53-55, 57 and 64-68 that depend ultimately therefrom and that are also rejected over Bebee) recites an *in vitro* method for synthesizing one or more nucleic acid molecules comprising one or more recombination sites, the method comprising, obtaining at least one isolated linear nucleic acid molecule; contacting the molecule *in vitro* with one or more adapters which comprise at least a first recombination site or portions thereof under conditions sufficient to add one or more of the adapters to one or more termini of the linear nucleic acid molecule; and mixing the linear nucleic acid molecule with at least one vector *in vitro* in the presence of at least one recombination protein, under conditions sufficient to cause recombination of the linear nucleic acid molecule with the vector.

Applicants respectfully submit that Bebee does not disclose every element of claim 52 (and hence the dependent claims noted above), and therefore cannot anticipate the claimed invention. Under 35 U.S.C. § 102, a claim can only be anticipated if every element in the claim is expressly or inherently disclosed in a single prior art reference. *See Kalman v. Kimberly Clark Corp.*, 713 F.2d 760, 771 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1026 (1984). Applicants submit that Bebee does not disclose the *in vitro* methods of the claimed invention, being limited instead to *in vivo* recombination wherein the recombination takes place inside of host cells (*see, e.g.*, Bebee in the title; in the abstract; at column 2, lines 47-55; at column 3, lines 46-58; in Example 2, at column 12, lines 16-20; and in Example 5,

at columns 17-20). Hence, in view of *Kalman*, Bebee cannot and does not anticipate the present invention. Reconsideration and withdrawal of the rejection of claims 52-55, 57 and 64-68 under 35 U.S.C. § 102(e) over Bebee are respectfully requested.

VII. The Rejection Under 35 U.S.C. § 103 (a) Over Bebee in view of Hodges

In the Office Action at pages 6-8, the Examiner has rejected claims 52-57 and 64-68 under 35 U.S.C. § 103 (a) as being unpatentable over Bebee in view of Hodges *et al.*, U.S. Patent No. 5,929,307 (hereinafter “Hodges”). Applicants respectfully traverse this rejection.

As noted above, present claim 52 (and hence claims 53-57 and 64-68 that depend ultimately therefrom and that are also presently rejected) recites an *in vitro* method for synthesizing one or more nucleic acid molecules comprising one or more recombination sites, which is not disclosed by Bebee. Therefore, Bebee is deficient as a primary reference and cannot support a *prima facie* case of obviousness.

Hodges does not cure these deficiencies in Bebee, as Hodges also does not disclose an *in vitro* method for synthesizing one or more nucleic acid molecules comprising one or more recombination sites. The disclosure of Hodges is limited instead to *in vivo* recombination wherein the recombination takes place inside of host cells (*see, e.g.*, Hodges at column 4, lines 44-51; at column 10, lines 56-60; at column 11, lines 28-33 and lines 41-47; at column 12, lines 3-7; and in Example 3 at column 15). Thus, Bebee and Hodges, alone or in combination, do not disclose the presently claimed invention.

In view of the forgoing remarks, Applicants submit that Bebee and Hodges cannot be properly combined in an attempt to establish a *prima facie* case of obviousness.

Applicants therefore respectfully request reconsideration and withdrawal of the rejection of claims 52-57 and 64-68 under 35 U.S.C. § 103(a).

VIII. The Rejection Under 35 U.S.C. § 103 (a) Over Bebee, Hodges and Waterhouse

In the Office Action at pages 8-10, the Examiner has rejected claims 52-68 under 35 U.S.C. § 103 (a) as being unpatentable over Bebee and Hodges in view of Waterhouse *et al.*, *Nucleic Acids Research* 21:2265-2266 (1993) (hereinafter “Waterhouse”). Applicants respectfully traverse this rejection.

As noted above, present claim 52 (and hence claims 53-68 that depend ultimately therefrom and that are also presently rejected) recites an *in vitro* method for synthesizing one or more nucleic acid molecules comprising one or more recombination sites, which is not disclosed by Bebee and Hodges alone or in combination. These deficiencies in Bebee and Hodges are not cured by Waterhouse, which also does not disclose an *in vitro* method for synthesizing one or more nucleic acid molecules comprising one or more recombination sites, being limited instead to *in vivo* recombination methods (*see, e.g.*, Waterhouse in the title; at page 2265, column 1, second paragraph, lines 12-15; at page 2265, column 1, third paragraph, lines 12-17; at page 2265, column 2, second paragraph, lines 7-9; and at page 2266, in legend for Figure 1, line 4 and lines 9-14). Hence, Waterhouse does not supply the disclosure missing from Bebee and Hodges that is required to cure the deficiencies in these references.

In view of the forgoing remarks, Applicants submit that Bebee, Hodges and Waterhouse cannot be properly combined in an attempt to establish a *prima facie* case of obviousness. Hence, Bebee, Hodges and Waterhouse, alone or in combination, do not render

obvious the presently claimed invention. Applicants therefore respectfully request that the rejection of claims 52-68 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

IX. Other Matters

A. The Objection to Claim 66

In the Office Action at page 3, the Examiner has objected to claim 66, citing inadvertent typographical errors. Applicants thank the Examiner for this observation, and respectfully request that this objection be reconsidered and withdrawn in view of the forgoing amendments to claim 66.

B. The Formal Drawings

Applicants note that the Examiner has required the submission of several new formal drawings in the present application (*see* Office Action at pages 2-3, section 8). The required drawings, 2A, 4A, 7B, 7D, 8A, 8B, 8C, 8D, 8E, 8F, 8G, 8H, 8I, 8J, 8K, 9A, 9B, 9C, 10A, 10B, 10C, 10D, 11A, 11B, 11C, 12A, 12B, 12C and 12D, corresponding to the drawings that have been objected to, are being submitted herewith. Identification of the drawings is provided in accordance with 37 C.F.R. § 1.84(c). Approval and entry of these replacement formal drawings into this application are respectfully requested.

X. Conclusion

All of the stated grounds of objection and rejection have been properly traversed or otherwise overcome. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn.

Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Br. Del Buono", with a long horizontal flourish extending to the right.

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